

**English Translation of Relevant Portions of JP-U-1989-169902,
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[Claims]

1. A boiler water concentration prevention apparatus comprising:
a counter connected to a water feed pump periodically controlling feed of water to a boiler, and adding up a feed-on time;
a timer operating for a predetermined time each time when an amount to be counted by the counter reaches a predetermined amount; and
an automatic blow-down valve operating in accordance with the timer.

[Technical Field of the Invention]

The present utility relates to an apparatus adopted, for a boiler whose water level is controlled by periodically feeding a predetermined amount of water in accordance with on and off of a water feed pump, to prevent water inside the boiler from being concentrated by intermittent blow-down of an automatic blow valve.

[Means for Solving the Problem]

To achieve the above-described object, a boiler water concentration prevention apparatus according to the present utility, as shown in the drawing, includes a counter 3 connected to a water feed pump 2 periodically controlling feed of water to a boiler 1, and adding up a feed-on time; a timer 4 operating for a predetermined time each time when an amount to be counted by the counter 3 reaches a predetermined amount; and an automatic blow-down valve operating in accordance with the timer.

For preventing water inside the boiler from being excessively concentrated, and for maintaining concentration of the water inside the boiler necessary for preventing the boiler from being corroded, it is necessary to secure the amount of blow-down that at all times yields a constant ratio with respect to the amount of evaporation. By applying properties that the amount of water fed to the boiler is approximately proportional to the amount of evaporation, and that, likewise, the feed-on time of a water feed apparatus is proportional to the amount of water fed, the amount of evaporation is grasped as a result of adding up of the feed-on time of the water feed apparatus, and then a predetermined amount of blow-down separately setup is blown-down for a predetermined time each time when an added-up time reaches a value separately setup, whereby it is possible to obtain the amount of blow-down

proportional to the amount of evaporation even if a load imposed on the boiler is changed.